

Oil Sample Analysis Report

**U. S. EPA Region V
Case Number E16514**

**Marine Safety Laboratory
Case Number 16-083**



U.S. Department of
Homeland Security

**United States
Coast Guard**



Manager
U.S. Coast Guard
Marine Safety Laboratory

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16450
28 Mar 2016

U. S. Environmental Protection Agency
Attn: On-Scene Coordinator
9311 Groh Road
Mail Code: SEGI
Grosse Ile, MI 481381697

Dear On-Scene Coordinator:

The laboratory analysis of this case has been completed and our report is forwarded. The technical data supporting the report (spectrograms and chromatograms) have been archived at our facility and are available upon request. We will maintain the oil samples in refrigerated storage pending final case disposition.

Questions concerning this report or the analytical methods used should be directed to the Supervisor of Analysis, Kristy Juare.


K. JUAIRE

Encl: (1) MSL Report 16-083

**United States Coast Guard
Marine Safety Laboratory
Oil Sample Analysis Report
16-083**

Requestor: U. S. EPA Region V

Unit Case/Activity Number: E16514

Received: 22-Mar-16

Via: Federal Express 8099 4595 7003

Number Of Samples: 3

Lab ID for Spills: 1

Lab ID for Sources: 2 and 3

Lab ID for Background: n/a

Analysis Methods:

- ☒ GAS CHROMATOGRAPHY (GC)
- ☒ GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS)
- ☐ INFRARED SPECTROSCOPY (IR)

Laboratory's Conclusion (as explained below): MATCH

RESULTS:

1. Sample 16-083-1 was specified to be representative of spilled oil. Analysis indicates this sample contains primarily lubricating oil mixed with a small amount of light fuel oil. Non-petroleum contamination is present.
2. Suspected source sample 16-083-2 contains primarily lubricating oil mixed with a small amount of light fuel oil with characteristics similar to those of spill sample 16-083-1. Differences are attributable to the non-petroleum contamination present in both samples.
3. Suspected source sample 16-083-3 contains primarily lubricating oil mixed with a small amount of light fuel oil with characteristics somewhat similar to those of spill sample 16-083-1. Important similarities strongly suggest these samples are related to each other through a common source of petroleum oil. However, a conclusive comparison is precluded by the non-petroleum contamination noted in sample 16-083-3.

CONCLUSIONS:

1. Suspected source sample 16-083-2 and spill sample 16-083-1 are derived from a common source of petroleum oil.
2. Comparison of suspected source sample 16-083-3 to spill sample 16-083-1 is inconclusive for reasons stated above.

SUPERVISOR OF ANALYSIS

K. JUAIRE



DATE

28-Mar-16

**United States Coast Guard
Marine Safety Laboratory**

**Oil Spill Identification Analysis
Cost Recovery Documentation**

Laboratory Case Number: 16-083

Requestor: U. S. EPA Region V

Unit Case Number: E16514

Number of Samples: 4

Cost Per Sample Prepared: \$20.00

Total Costs of Sample Preparation: \$80.00

Number of Analyses: 10

Cost Per Sample Analyzed: \$86.00

Total Costs for Analysis: \$860.00

TOTAL COSTS: \$940.00

This documentation is provided for purposes of Phase IV - Documentation and
Cost Recovery under the National Oil and Hazardous Substances Pollution
Contingency Plan (40 CFR Part 300)

Signature:



Date: 28 Mar 2016

**United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log**

MSL Case/Activity Number: 16-083

Requestor: U. S. EPA Region V

Unit Case Number: E16514

Federal Project Number: E16514

Delivery Method: Federal Express

Received Date: 22 Mar 16

Delivery Number: 8099 4595 7003

Priority: No

Rush: No

Comparison: No

| Lab ID 16-083 | Sample Descriptions from Sample Jars | Spill | Source |
|------------------|---|-------------------------------------|-------------------------------------|
| 1 | MOS-SHEEN-01 SHEEN FROM MANHOLE NEXT TO RAILWAY 03-16-16 21:05 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2 | MOS-SOURCE-01 POTENTIAL SOURCE MATERIAL TAKEN FROM OWS ONSITE 03-17-16 11:35 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 | MOS-SOURCE-02 POTENTIAL SOURCE MATERIAL TAKEN FROM SE OF TURNINGS PILE 03-17-16 11:55 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4 | | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | | <input type="checkbox"/> | <input type="checkbox"/> |

Remarks:

Samples checked in by: WILLIAM LIZIK

Date: 22 Mar 16

Sample Custodian: MST2 CHELSEA WARREN

Date: 23 MAR 16

Supervisor of Analysis: K. JUAIRE

Date: 28 MAR 16



Sample Location Map

MOS-Source-01

MOS-Source-02

MOS-Sheen-01

Oakman Blvd

Cloverlawn Ave

Bryden St

Google earth

Chicago W

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500 ft

